

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re Application of: :  
Michael ROELLEKE et al. : Examiner: Tuan C. To  
For: SYSTEM FOR GENERATING A :  
TRIGGERING SIGNAL FOR :  
RESTRAINING MEANS AND METHOD :  
FOR TRIGGERING RESTRAINING :  
MEANS IN A VEHICLE :  
Filed: May 6, 2005 : Art Unit: 2142  
Serial No.: 10/511,969 :  
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MAIL STOP APPEAL BRIEF -  
PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office via the Office electronic filing system on August 28, 2008.

Signature: /Gerard A. Messina/

**SUPPLEMENTAL/REPLACEMENT APPEAL BRIEF  
PURSUANT TO 37 C.F.R. § 41.37**

SIR:

In the above-identified patent application (“the present application”), Appellants filed a Notice Of Appeal on March 12, 2008 from the Final Office Action issued by the U.S. Patent and Trademark Office on September 13, 2007, and an Appeal Brief was filed on July 14, 2008.

A Notice of Non-compliance was mailed on July 28, 2008, so that the one-month response date is August 28, 2008.

In the Final Office Action, claims 17, 19 to 25, and 27 to 36 were finally rejected. A Response After a Final Office Action was mailed on October 23, 2007, and an Advisory Action was mailed on March 17, 2008.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final does not require entry since it included no amendments.

*The previously filed Appeal Brief filed on July 14, 2008 in support of the appeal of the final rejections of claims 17, 19 to 25, and 27 to 36 was deemed non-compliant in the Notification of Non-Compliant Appeal Brief (37 CFR 41.37) of July 28, 2008. In the Notification: it was stated as to item 2 that “The brief does not contain a statement of the status of all claims . . .” because the brief does not indicate the status of cancelled claims 18 and 26, as stated in item 10.*

*The Replacement Appeal Brief is believed to comply with all the requirements of Rule 41.37, and to address the issues raised in Notice as items 2/10.*

*As to the length of the “concise explanation” of the subject matter defined in each of the claims involved in the appeal (see 41.37), the “concise explanation” language is like the “concise explanation” requirement of former Rule 37 C.F.R. § 1.192. Accordingly, the length of the concise explanation provided is acceptable, since it would have been acceptable under 37 C.F.R. § 1.192 and since it specifically defines the subject matter of the independent claims involved and in the appeal. In the filing of many appeal briefs under the old rule for the present Assignee, the length of the “concise explanation” has always been ultimately accepted by the Patent Office.*

It is respectfully submitted that all matters have been corrected and that this Replacement Appeal brief complies with 37 C.F.R. 41.37, and specifically moots the stated reasons for deeming the original Appeal Brief mailed on July 14, 2008 as non-compliant, so that this Replacement Appeal Brief is compliant. Although no longer required by the rules, this Brief is submitted in triplicate as a courtesy to the Appeals Board.

It is respectfully submitted that the final rejections of claims 17, 19 to 25, and 27 to 36 should be reversed for the reasons set forth below.

## **1. REAL PARTY IN INTEREST**

The real party in interest in the present appeal is Robert Bosch GmbH (“Robert Bosch”) of Stuttgart in the Federal Republic of Germany. Robert Bosch is the assignee of the entire right, title and interest in the present application.

## **2. RELATED APPEALS AND INTERFERENCES**

There are no interferences or other appeals related to the present application, which “will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal”.

## **3. STATUS OF CLAIMS**

### **CLAIMS 1 TO 16, 18 AND 26 ARE CANCELED.**

A. Claims 17, 19, 20, 25, 27, 29, 30, 32, 33, 35, and 36 were rejected under 35 USC § 102(a) as anticipated by U.S. Patent No. 6,315,074 (“Achhammer et al.”).

B. Claims 21 to 24, 28, 31, and 34 were rejected under 35 U.S.C. § 103(a) as unpatentable over Achhammer in view of U.S. Patent App. Pub. No. 2002/0152012 (“Watson et al.”).

Appellants therefore appeal from the final rejections of pending claims 17, 19 to 25, and 27 to 36. A copy of all of the pending and appealed claims 17, 19 to 25, and 27 to 36 is attached hereto in the Claims Appendix.

## **4. STATUS OF AMENDMENTS**

In response to the Final Office Action mailed on September 13, 2007, Appellants filed a Response After A Final Office Action (with no amendments), which was mailed on October 23, 2007.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final does not require entry since it included no amendments.

## **5. SUMMARY OF CLAIMED SUBJECT MATTER**

The concise explanation of the summary of the claimed subject matter is as follows, as described in the context of the present application.

*As in claims 17 and 25, the specification and Figures disclose and describe the following:*

The “Background Information” Section explains that in vehicles equipped with a restraining arrangement, triggering of the restraining arrangement in accidents involving a head-on collision or a side impact normally takes place independently from the circumstances of the accident. In particular, it is not considered in such triggering algorithms whether a rollover takes place or has already taken place during an accident. (See specification, page 1, lines 24 to 31). In accidents where a critical rotational motion of the vehicle also occurs, an injury risk for the vehicle passengers emanates from triggering the restraining arrangement. *Protection of the vehicle passengers may be improved if the circumstances of the accident are considered in the triggering decision.* (See specification, page 2, lines 8 to 15).

*The presently claimed subject matter provides the benefit of refining the criterion for triggering for impact situations in vehicles. Information about the possible occurrence or existence of a rotational motion of the vehicle is considered in the decision about triggering these restraining arrangements.* (See specification, page 2, lines 17 to 22).

*In the event of an impact situation the restraining arrangement are blocked for a defined period of time  $t_{stop}$  when a critical rotational motion of the vehicle has been recognized. The circuit according to the presently claimed subject matter includes at least one hold element for this purpose, with which period of time  $t_{stop}$ , in which no triggering signal may be generated, is determined.* (See specification, page 3, lines 18 to 25).

*As to claim 17, it is to a system for generating a triggering signal for a restraining unit in a vehicle, in which in the event of an impact, the impact detection unit generates a request signal for the restraining unit, the request signal corresponding to a type of detected impact.* In this regard, the specification discloses exemplary systems 1, 2 and 3 in connection with Figures 1a-1c, used for generating a triggering signal for a restraining arrangement in a vehicle. The example systems include a detecting arrangement 4 for detecting a collision and which generate a request signal 5 for an impact. (See specification, page 6, lines 2 to 11 and Figs. 1a-c).

*As to claim 17, it also includes the feature of a rotation detection unit detecting a rotational motion of the vehicle about at least one of the longitudinal axis and the transverse*

*axis of the vehicle, in which the rotation detection unit generates a status signal corresponding to a rotational motion status.* In this regard, the specification discloses that each of systems 1, 2, or 3 include arrangements 6 and/or 7 for detecting a rotational motion of the vehicle about at least one vehicle axis – longitudinal axis (x) and/or transverse axis (y). These arrangements generate a corresponding status signal 8 or 9. (See specification, page 6, lines 11 to 15 and Figs. 1a-c).

*As to claim 17, it also includes the feature of a circuit generating the triggering signal for the restraining unit, in which the circuit combines the request signal and the status signal in generating the triggering signal, whereby information regarding one of a possible occurrence and the existence of a rotational motion is considered in triggering the restraining unit, and in which the circuit includes at least one hold element determining a period of time during which no triggering signal may be generated when a critical rotational motion of the vehicle has been detected.* In this regard, the specification discloses that each of systems 1, 2, or 3 includes a circuit 11, 21, or 31 for generating a triggering signal 10 which combines request signal 5 and status signal 8 and/or 9 so that information about a possible occurrence or the existence of a rotational motion is considered in the decision about triggering the restraining arrangement. (See specification, page 6, lines 17 to 21 and Figs. 1a-c). The specification further discloses that each of circuits 11, 21, or 31 includes a hold element 13 whose function only becomes effective when a critical rotational motion has been recognized. In these cases, hold element 13 causes the restraining arrangement to be blocked for a period of time  $t_{stop}$  in the event of an impact. (See specification, page 6, lines 22 to 27 and Figs. 1a-c). Different embodiments 131, 132, 133, and 134 for implementing a hold element are disclosed in Figures 2a through 2d. (See specification, page 9, lines 10 to 12 and Figs. 2a-d).

*As to claim 25, it is to a method for triggering a restraining unit in a vehicle, the restraining unit being provided for the event of a collision of the vehicle, including detecting an impact of the vehicle, in which, in the event of an impact, a request signal for the restraining unit is generated, the request signal corresponding to a type of impact that has been detected.* In this regard, the specification discloses example systems 1, 2 and 3 in connection with Figures 1a through 1c, used for generating a triggering signal for restraining arrangement in a vehicle, the restraining arrangements being provided for the event of a collision of the vehicle. All three example systems include the detecting arrangement 4 for detecting a collision and which, in the event of an impact, generate a request signal 5 for the

restraining arrangement which are appropriately provided for the existing type of impact. (See specification, page 6, lines 2 to 11 and Figs. 1a-c).

*As to claim 25, it also includes the feature of detecting one of a possible occurrence of a rotational motion and an existence of a rotational motion of the vehicle.* In this regard, the specification discloses that each of systems 1, 2, or 3 include arrangements 6 and/or 7 for detecting a rotational motion of the vehicle about at least one vehicle axis – longitudinal axis (x) and/or transverse axis (y). These arrangements generate a corresponding status signal 8 or 9. (See specification, page 6, lines 11 to 15 and Figs. 1a-c).

*As to claim 25, it also includes the feature of generating the triggering signal for the restraining unit, in which the request signal and information regarding one of the possible occurrence of a rotational motion and the existence of a rotational motion are considered in generating the triggering signal, and in which the information regarding one of the possible occurrence of a rotational motion and the existence of a rotational motion of the vehicle is analyzed to determine whether a critical rotational motion exists, and in which, in the event of an impact, the restraining unit is blocked from being triggered for a selected period of time tstop when a critical rotational motion exists.* In this regard, the specification specifically discloses that each of systems 1, 2, or 3 includes a circuit 11, 21, or 31 for generating a triggering signal 10 which combines request signal 5 and status signal 8 and/or 9 so that information about a possible occurrence or the existence of a rotational motion is considered in the decision about triggering the restraining arrangement. (See specification, page 6, lines 17 to 21 and Figs. 1a-c). The specification further discloses that each of circuits 11, 21, or 31 includes a hold element 13 whose function only becomes effective when a critical rotational motion has been recognized. In these cases, hold element 13 causes the restraining arrangement to be blocked for a period of time  $t_{stop}$  in the event of an impact. (See specification, page 6, lines 22 to 27 and Figs. 1a-c). Different embodiments 131, 132, 133, and 134 for implementing a hold element are illustrated in Figures 2a through 2d. (See specification, page 9, lines 10 to 12 and Figs. 2a-d).

*As to claim 21 (depending from claims 17, 19 and 20), it further includes the feature of claim 19 in which the rotation detection unit includes an arrangement detecting an instantaneous angular position, and in which a critical rotational motion of the vehicle is deemed to exist when the instantaneous angular position exceeds a first defined threshold value.* In this regard, the present the specification discloses that in system 2 illustrated in Figure 1b, the vehicle's instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) is monitored using

arrangement 7 and compared with a corresponding threshold value ( $\alpha_{x \min 2}$  and/or  $\alpha_{y \min 2}$ ). The existence of a rollover situation is assumed when the instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) exceeds this threshold value ( $\alpha_{x \ min 2}$  and/or  $\alpha_{y \ min 2}$ ). (See specification, page 8, lines 4 to 12 and Fig. 1b).

*As to claim 21 (depending from claims 17, 19 and 20), it further includes the feature of claim 20 in which the rotation detection unit further includes an arrangement predicting a rollover, and in which a critical rotational motion of the vehicle is deemed to exist when a rollover is predicted.* In this regard, the present specification discloses that in system 3 of Figure 1c, arrangement 6 described in connection with Figure 1a, which allows the prediction of a rollover, and arrangement 7 for detecting a rollover described in connection with Figure 1b, are combined, so that the function of hold element 13 only becomes effective when a rollover is predicted and when instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) exceeds a certain threshold value ( $\alpha_{x \ min 2}$  and/or  $\alpha_{y \ min 2}$ ). (See specification, page 8, lines 15 to 21 and Fig. 1c).

*As to claim 21 (depending from claims 17, 19 and 20), it further includes the feature in which the arrangement predicting a rollover is configured to detect and analyze an instantaneous angular velocity of the vehicle, and in which a rollover is predicted when the instantaneous angular velocity exceeds a second threshold value.* In this regard, the present specification discloses that in system 1 illustrated in Figure 1a, arrangement 6 makes it possible to predict whether a rollover is imminent. Such a prediction may be based on information about the vehicle's instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) in connection with information about the vehicle's instantaneous angular velocity ( $\omega_x$  and/or  $\omega_y$ ). A rollover is predicted when the instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) exceeds a corresponding threshold value ( $\alpha_{x \ min 2}$  and/or  $\alpha_{y \ min 2}$ ) and when the instantaneous angular velocity ( $\omega_x$  and/or  $\omega_y$ ) exceeds a corresponding threshold value ( $\omega_{x \ min}$  and/or  $\omega_{y \ min}$ ). (See specification, page 7, lines 1 to 12 and Fig. 1a).

*As to claim 28 (depending from claims 25 and 27), it further includes the feature of claim 27 in which an instantaneous angular position of the vehicle is detected and analyzed, and in which a vehicle motion is deemed to be a critical rotational motion when the instantaneous angular position exceeds a first threshold value.* In this regard, the present specification discloses that in system 2 illustrated in Figure 1b, the vehicle's instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) is monitored using arrangement 7 and compared with a corresponding threshold value ( $\alpha_{x \ min 2}$  and/or  $\alpha_{y \ min 2}$ ). The existence of a rollover situation is

assumed when the instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) exceeds this threshold value ( $\alpha_{x \min 2}$  and/or  $\alpha_{y \min 2}$ ). (See specification, page 8, lines 4 to 12 and Fig. 1b).

*As to claim 28 (depending from claims 25 and 27), it further includes the feature in which an instantaneous angular velocity of the vehicle is detected and analyzed, and in which a vehicle motion is deemed to be a critical rotational motion when the instantaneous angular velocity exceeds a second threshold value.* In this regard, the specification discloses that in system 1 illustrated in Figure 1a, arrangement 6 makes it possible to predict whether a rollover is imminent, and this is based on information about the vehicle's instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) in connection with information about the vehicle's instantaneous angular velocity ( $\omega_x$  and/or  $\omega_y$ ). A rollover is predicted when the instantaneous angular position ( $\alpha_x$  and/or  $\alpha_y$ ) exceeds a corresponding threshold value ( $\alpha_{x \ min 2}$  and/or  $\alpha_{y \ min 2}$ ) and when the instantaneous angular velocity ( $\omega_x$  and/or  $\omega_y$ ) also exceeds a corresponding threshold value ( $\omega_{x \ min}$  and/or  $\omega_{y \ min}$ ). (See specification, page 7, lines 1 to 12 and Fig. 1a).

*In summary, the presently claimed subject matter is to a system for generating a triggering signal for a restraining unit in a vehicle, the restraining unit provided for the event of a collision of the vehicle, including an impact detection unit detecting an impact of the vehicle, in which the impact detection unit generates a request signal for the restraining unit, the request signal corresponding to a type of impact that has been detected; a rotation detection unit detecting a rotational motion of the vehicle about at least one of the longitudinal axis and the transverse axis of the vehicle, in which the rotation detection unit generates a status signal corresponding to a rotational motion status; and a circuit generating the triggering signal for the restraining unit, in which the circuit combines the request signal and the status signal in generating the triggering signal, whereby information regarding one of a possible occurrence and the existence of a rotational motion is considered in triggering the restraining unit, and in which the circuit includes at least one hold element determining a period of time during which no triggering signal may be generated when a critical rotational motion of the vehicle has been detected. (See claim 17).*

*In summary, the presently claimed subject matter is also to a method for triggering a restraining unit in a vehicle, the restraining unit being provided for the event of a collision of the vehicle, including detecting an impact of the vehicle, in which a request signal for the restraining unit is generated, the request signal corresponding to a type of impact that has been detected; detecting one of a possible occurrence of a rotational motion and an existence of a rotational motion of the vehicle; and generating the triggering signal for the restraining*

*unit, in which the request signal and information regarding one of the possible occurrence of a rotational motion and the existence of a rotational motion are considered in generating the triggering signal, and in which the information regarding one of the possible occurrence of a rotational motion and the existence of a rotational motion of the vehicle is analyzed to determine whether a critical rotational motion exists, and in which the restraining unit is blocked from being triggered for a selected period of time  $t_{stop}$  when a critical rotational motion exists. (See claim 25).*

*In summary, the presently claimed subject matter includes the feature in which the arrangement predicting a rollover is configured to detect and analyze an instantaneous angular velocity of the vehicle, and in which a rollover is predicted when the instantaneous angular velocity exceeds a second threshold value. (See claim 21). Claim 21 depends from claims 17, 19 and 20, and therefore includes all the features of claims 17, 19 and 20 as described above.*

*In summary, the presently claimed subject matter includes the feature wherein an instantaneous angular velocity of the vehicle is detected and analyzed, and wherein a vehicle motion is deemed to be a critical rotational motion when the instantaneous angular velocity exceeds a second threshold value. (See claim 28). Claim 28 depends from claims 25 and 27, and therefore includes all the features of claims 25 and 27 as described above.*

*Finally, the appealed claims include no means-plus-function language and no step-plus-function claims, so that 37 C.F.R. 41.37(v) is satisfied as to its specific requirements for such claims, since none are present here. Also, the present application does not contain any step-plus-function claims because the method claims in the present application are not “step plus function” claims because they do not recite “a step for”, as required by the Federal Circuit and as stated in Section 2181 of the MPEP.*

## **6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

A. Whether claims 17, 19, 20, 25, 27, 29, 30, 32, 33, 35, and 36 under 35 U.S.C. § 102(a) are anticipated by U.S. Patent No. 6,315,074 to “Achhammer et al.”.

B. Whether claims 21 to 24, 28, 31, and 34 are unpatentable under 35 U.S.C. § 103(a) over Achhammer in view of U.S. Patent App. Pub. No. 2002/0152012 to “Watson et al.”.

## **7. ARGUMENT**

### **A. THE ANTICIPATION REJECTIONS OF CLAIMS 17, 19, 20, 25, 27, 29, 30, 32, 33, 35, AND 36**

#### **Claims 17, 19 and 20**

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102(a), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See Scripps Clinic & Research Foundation v. Genentech, Inc., 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Answer and the Office Actions to date do not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed subject matter. (See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Office may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flows from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; and see Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'l. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic.

Claim 17 relates to a “system for generating a triggering signal for a restraining unit in a vehicle,” including the feature of “a circuit generating the triggering signal for the restraining unit,” ... in which the circuit includes “*at least one hold element determining a period of time during which no triggering signal may be generated when a critical rotational motion of the vehicle has been detected.*”

Nothing in the Achhammer reference identically discloses (or even suggests) a circuit that includes at least one hold element *determining a period of time* during which no triggering signal may be generated when a critical rotational motion of the vehicle has been detected, as provided for in the context of claim 17. The Achhammer reference merely refers to a triggering circuit that blocks activation signals *for an unspecified amount of time*. Specifically, the Achhammer reference only indicates that the triggering circuit blocks activation signals when a vehicle remains in one position for an amount of time exceeding a

preset threshold value. (Achhammer, col. 3, lines 18 to 26). However, *there is no indication at all that the triggering circuit of the Achhammer reference makes a determination of a period of time during which no triggering signal may be generated*. Instead, the triggering circuit of Achhammer makes no such determination, but merely blocks activation signals when a vehicle reaches “a stable, tilted position.” (Achhammer, col. 4, line 20). *Thus, the Achhammer reference does not identically disclose (nor even suggest) a circuit that includes at least one hold element determining a period of time during which no triggering signal may be generated, as provided for in the context of claim 17.*

Further, nothing in the Achhammer reference identically discloses (or even suggests) a circuit that includes at least one hold element determining a period of time during which no triggering signal may be generated *when a critical rotational motion of the vehicle has been detected*, as provided for in the context of claim 17. As explained above, the Achhammer reference merely indicates that a triggering circuit blocks activation signals *when the vehicle remains in one position for an amount of time exceeding a preset threshold value*, and that the triggering circuit blocks activation signals only when a “motor vehicle has been in a tilted position over a lengthy period of time” (Achhammer, col. 3, lines 23 to 24). Only after such “a stable, tilted vehicle state” has been reached, does the triggering circuit blocks activation signals. (Achhammer, col. 5, lines 28 to 44). *Thus, the Achhammer reference does not disclose the blocking of activation signals when a critical rotational motion has been detected, but only indicates blocking activation signals after a vehicle comes to rest.* Therefore, the Achhammer reference does not identically disclose (or even suggest) a circuit that includes at least one hold element determining a period of time during which no triggering signal may be generated when a critical rotational motion of the vehicle has been detected, as provided for in the context of claim 17.

Accordingly, it is respectfully submitted that claim 17 is allowable for at least the reasons provided above. Claims 19 and 20 depend from claim 17 and are therefore allowable for at least the same reasons as claim 17.

Withdrawal of the rejections of these claims is therefore respectfully requested.

### **Claims 25, 27, 29, 30, 32, 33, 35, and 36**

Claim 25, includes features similar to those of claim 17. Claim 25 relates to a “method for triggering a restraining unit in a vehicle,” including the feature of “generating the triggering signal for the restraining unit,” … in which “*in the event of an impact, the restraining unit is blocked from being triggered for a selected period of time  $t_{stop}$  when a critical rotational motion exists.*”

As explained above as to claim 17, the Achhammer reference does not identically disclose (or even suggest) that the restraining unit is blocked from being triggered for a selected period of time  $t_{stop}$  when a critical rotational motion exists, as provided for in the context of claim 25. Specifically, the triggering circuit of the Achhammer reference *does not select a period of time  $t_{stop}$  during which to block signals to the restraining unit*. Further, the triggering circuit of the Achhammer reference *does not disclose blocking the restraining unit from being triggered when a critical rotational motion exists*, but only indicates blocking the restraining unit after a vehicle comes to rest. Thus, the Achhammer reference does not identically disclose (nor even suggest) that the restraining unit is blocked from being triggered for a selected period of time  $t_{stop}$  when a critical rotational motion exists, as provided for in the context of claim 25.

Accordingly, it is respectfully submitted that claim 25 is allowable for at least the reasons provided above. Claims 27, 29, 30, 32, 33, 35, and 36 depend from claim 25 and are therefore allowable for at least the same reasons as claim 25.

Withdrawal of the rejections of these claims is therefore respectfully requested.

### **B. THE OBVIOUSNESS REJECTIONS OF CLAIMS 21 TO 24, 28, 31, AND 34**

#### **Claims 21 to 24**

In rejecting a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. *In re Merck &*

Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Also, as clearly indicated by the Supreme Court in KSR, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. See KSR Int’l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Id., at 1396.

Claims 21 to 24 depend from claim 17. As explained above, the Achhammer reference does not disclose or even suggest all of the features of claim 17. Since the Watson reference does not cure the critical deficiencies of the Achhammer reference, the proposed combination of the Achhammer reference and the Watson reference cannot disclose or suggest all of the features of claim 17 or its dependent claims 21 to 24. Therefore, it is respectfully submitted that claims 21 to 24 are allowable for essentially the same reasons provided above as to their base claim.

Withdrawal of the obviousness objections of these claims is therefore respectfully requested.

#### **Claims 28, 31, and 34**

Claims 28, 31, and 34 depend from claim 25. As explained above, the Achhammer reference does not disclose or even suggest all of the features of claim 25. Since the Watson reference does not cure the critical deficiencies of the Achhammer reference, the proposed combination of the Achhammer reference and the Watson reference cannot disclose or suggest all of the features of claim 25, or its dependent claims 28, 31, and 34. Therefore, it is respectfully submitted that claims 28, 31, and 34 are allowable for essentially the same reasons provided above as to their base claim.

Withdrawal of the obviousness objections of these claims is therefore respectfully requested.

As further regards all of the obviousness rejections of the claims, the presently claimed subject matter provides the benefit of refining the criterion for triggering the restraining arrangement provided for impact situations in vehicles. Information about the

possible occurrence or existence of a rotational motion of the vehicle is considered in the decision about triggering these restraining arrangements. (See specification, page 2, lines 17 to 22).

In the event of an impact situation the restraining arrangements are blocked for a defined period of time  $t_{stop}$  when a critical rotational motion of the vehicle has been recognized. The circuit according to the presently claimed subject matter includes at least one hold element for this purpose, with which period of time  $t_{stop}$  in which no triggering signal may be generated, is determined. (See specification, page 3, lines 18 to 25).

Accordingly, the claimed subject matter is not obvious since its benefits are evidence of non-obviousness as to the reference as applied.

As further regards each of the obviousness rejections, it is respectfully submitted that the cases of In re Fine, supra, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Answer reflects a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

**Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.**

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

**Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to**

**make the modifications . . . necessary to arrive at the claimed [invention].**

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the Office Actions to date and the Answer offer no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter.

Also, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not the case here — there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of the reference, whether taken alone or combined, makes plain that the reference simply does not describe the features discussed above of the rejected claims.

Thus, the proper evidence of obviousness must show why there is a suggestion as to the reference so as to provide the subject matter of the claimed subject matter and its benefits.

In short, there is no evidence that the reference relied upon, whether taken alone or otherwise, would provide the features of the claims discussed above. It is therefore respectfully submitted that the claims are allowable for these reasons.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that a proper *prima facie* case has not been made in the present case for obviousness, since the Answer and the Office Actions to date never made any proper findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (See In re Kotzab, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembicza*k, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such proper showings by the Answer, the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and any Appeals Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper *prima facie* unpatentability case — which has not been met in the present case. (See In re Oetiker, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

Accordingly, claims 21 to 24, 28, 31, and 34 are allowable.

**CONCLUSION**

In view of the above, it is respectfully requested that the rejections of the finally rejected claims 17, 19 to 25, and 27 to 36 be reversed, and that these claims be allowed as presented.

Respectfully submitted,

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**CUSTOMER NO. 26646**

## **CLAIMS APPENDIX**

1-16 (Canceled).

17. A system for generating a triggering signal for a restraining unit in a vehicle, the restraining unit provided for the event of a collision of the vehicle, comprising:

an impact detection unit detecting an impact of the vehicle, wherein, in the event of an impact, the impact detection unit generates a request signal for the restraining unit, the request signal corresponding to a type of impact that has been detected;

a rotation detection unit detecting a rotational motion of the vehicle about at least one of the longitudinal axis and the transverse axis of the vehicle, wherein the rotation detection unit generates a status signal corresponding to a rotational motion status; and

a circuit generating the triggering signal for the restraining unit, wherein the circuit combines the request signal and the status signal in generating the triggering signal, whereby information regarding one of a possible occurrence and the existence of a rotational motion is considered in triggering the restraining unit, and wherein the circuit includes at least one hold element determining a period of time during which no triggering signal may be generated when a critical rotational motion of the vehicle has been detected.

18. (Canceled).

19. The system as recited in Claim 17, wherein the rotation detection unit includes an arrangement detecting an instantaneous angular position, and wherein a critical rotational motion of the vehicle is deemed to exist when the instantaneous angular position exceeds a first defined threshold value.

20. The system as recited in 19, wherein the rotation detection unit further includes an arrangement predicting a rollover, and wherein a critical rotational motion of the vehicle is deemed to exist when a rollover is predicted.

21. The system as recited in Claim 20, wherein the arrangement predicting a rollover is configured to detect and analyze an instantaneous angular velocity of the vehicle, and wherein a rollover is predicted when the instantaneous angular velocity exceeds a second threshold value.

22. The system as recited in Claim 21, wherein the hold element determines the period of time  $t_{stop}$  as infinite, whereby the restraining unit is permanently blocked from being triggered.

23. The system as recited in Claim 21, wherein the hold element determines the period of time  $t_{stop}$  in such a way that the restraining unit is blocked from being triggered at least until the vehicle has come to rest.

24. The system as recited in Claim 23, further comprising:

an arrangement detecting and analyzing the linear acceleration of the vehicle, in order to determine whether the vehicle has come to rest.

25. A method for triggering a restraining unit in a vehicle, the restraining unit being provided for the event of a collision of the vehicle, comprising:

detecting an impact of the vehicle, wherein, in the event of an impact, a request signal for the restraining unit is generated, the request signal corresponding to a type of impact that has been detected;

detecting one of a possible occurrence of a rotational motion and an existence of a rotational motion of the vehicle; and

generating the triggering signal for the restraining unit, wherein the request signal and information regarding one of the possible occurrence of a rotational motion and the existence of a rotational motion are considered in generating the triggering signal, and wherein the information regarding one of the possible occurrence of a rotational motion and the existence of a rotational motion of the vehicle is analyzed to determine whether a critical rotational motion exists, and wherein, in the event of an impact, the restraining unit is blocked from being triggered for a selected period of time  $t_{stop}$  when a critical rotational motion exists.

26. (Canceled).

27. The method as recited in Claim 25, wherein an instantaneous angular position of the vehicle is detected and analyzed, and wherein a vehicle motion is deemed to be a critical rotational motion when the instantaneous angular position exceeds a first threshold value.

28. The method as recited in Claim 27, wherein an instantaneous angular velocity of the vehicle is detected and analyzed, and wherein a vehicle motion is deemed to be a critical rotational motion when the instantaneous angular velocity exceeds a second threshold value.
29. The method as recited in Claim 25, wherein, in the event of an impact, the restraining unit is permanently blocked from being triggered when a critical rotational motion has been detected.
30. The method as recited in Claim 27, wherein, in the event of an impact, the restraining unit is permanently blocked from being triggered when a critical rotational motion has been detected.
31. The method as recited in Claim 28, wherein, in the event of an impact, the restraining unit is permanently blocked from being triggered when a critical rotational motion has been detected.
32. The method as recited in Claim 25, wherein, in the event of an impact, the restraining unit is blocked from being triggered at least until the vehicle has come to rest when a critical rotational motion has been detected.
33. The method as recited in Claim 27, wherein, in the event of an impact, the restraining unit is blocked from being triggered at least until the vehicle has come to rest when a critical rotational motion has been detected.
34. The method as recited in Claim 28, wherein, in the event of an impact, the restraining unit is blocked from being triggered at least until the vehicle has come to rest when a critical rotational motion has been detected.
35. The method as recited in Claim 33, wherein the vehicle is deemed to have come to rest when the instantaneous angular position falls below a third defined threshold value.
36. The method as recited in Claim 32, wherein an instantaneous linear acceleration of the vehicle is detected, and wherein the vehicle is deemed to have come to rest when a value derived from the instantaneous linear acceleration falls below a defined threshold value for the linear acceleration.

#### EVIDENCE APPENDIX

Appellants have not submitted any evidence pursuant to 37 CFR Sections 1.130, 1.131 or 1.132, and do not rely upon evidence entered by the Examiner.

RELATED PROCEEDINGS INDEX

There are no interferences or other appeals related to the present application.